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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,194	01/21/2004	Kia Silverbrook	MPA19US	2173
24011	7590	05/18/2006	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA			UHLENHAK, JASON S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/760,194

Applicant(s)

SILVERBROOK ET AL.

Examiner

Jason Uhlenhake

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being obvious over Silverbrook (U.S. Pat. 6,916,082) in view of Silverbrook (U.S. Pat. 7,021,843).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

***Silverbrook ('082) discloses:***

- ***regarding claim 1***, at least one printhead module (Abstract; Column 2, Lines 44 – 55), and at least two flexible printed circuit boards for connecting electrical signals to the at least two printhead integrated circuits (Column 2, Lines 63 – 65; Column 9, Lines 1 – 19; Column 10, Lines 32 – 35)
- drive electronics incorporating at least one controller which is connected to at least one of the at least two printhead integrated circuits via the respective flexible printed circuit board (58 of Figure 14) for controlling the printing operation of at least one of the at least two printhead integrated circuits (Column 2, Lines 63 – 65; Column 5, Lines 7 – 18, 30 – 32)
- a casing in which the at least one printhead module and the drive electronics are removably mounted (Column 6, Lines 36 – 40)
- wherein the drive electronics is provided on a printed circuit board carrying respective connection ports for receiving, and connecting (interconnects) with, corresponding connecting portions of the flexible printed circuit boards, the at least one printhead module being mounted to the casing so that the connecting portions are directly aligned with the respective connection ports (Column 2, Lines 63 – 65; Column 9, Lines 1 – 19; Column 10, Lines 32 – 35)
- ***regarding claim 2***, wherein the printed circuit board of the drive electronics is supported by a support frame of the casing (Abstract, Column 2, Lines 32 – 43)

- **regarding claim 3**, comprising a plurality of longitudinally extending electrical conductors removably mounted to the support frame and arranged to provide power from a power supply to the drive electronics and the at least two printhead integrated circuits (Column 5, Lines 42 – 46, 51 – 54)

- **regarding claim 4**, wherein power from the plurality of electrical conductors (68 of Figure 8) is delivered to the drive electronics and the printhead integrated circuits via the respective flexible printed circuit boards (58 of Figure 8; Column 5, Lines 31 – 32, 42 – 46)

- **regarding claim 5**, at least on printhead module formed as a unitary arrangement of at least two printhead integrated circuits (Column 2, Lines 44 – 68)

- support member, the at least two flexible printed circuit boards, at least one fluid distribution member mounting the at least two printhead integrated circuits to the support member (Column 2, Lines 35 – 65)

- the support member has at least one longitudinally extending channel (62 of Figure 1) for carrying the printing fluid for the printhead integrated circuits (Column 3, Lines 1 – 15), plurality of apertures extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both , or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (Column 2, Lines 40 – 43; Column 3, Lines 1 – 15)

- **regarding claim 6**, support member incorporates lugs which cooperate with recesses of the casing so as to provide direct alignment of the connecting portions and connecting ports (157 of Figure 6)

***Silverbrook ('082) does not disclose expressly the following:***

- **regarding claim 1**, at least one printhead module comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media and a support member supporting and carrying the printing fluid for the at least two printhead integrated circuits

***Silverbrook ('843) discloses:***

- **regarding claim 1**, at least one printhead module comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media (Column 13, Lines 52 – 67) and a support member supporting and carrying the printing fluid for the at least two printhead integrated circuits (Column 12, Lines 51 – 67; Column 13, Lines 1 - 15), for the purpose of controlling the printhead modules and performing printing operations efficiently.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of at least one printhead module comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media and a support member supporting and carrying the printing fluid for the at least two printhead integrated circuits as taught by Silverbrook ('843) into the device of Silverbrook ('082). The

motivation for doing so would have been to control the printhead modules and perform printing operations efficiently.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1 - 6 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejections regarding Silverbrook (U.S. Pat. 6,916,082) in view of Silverbrook (U.S. Pat. 7,021,843). They disclose modules that have more than one printhead chip and the PCBs receive, and connect (interconnects) with corresponding connecting portions of the flex PCBs of the modules.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2853

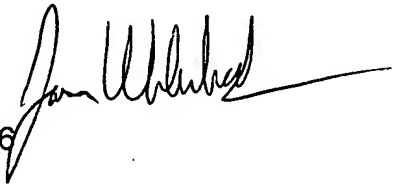
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU  
May 5, 2006



 5/06  
K. FIGGINS  
PRIMARY EXAMINER